

SIMONENKO, I.A.; KARYMSAKOVA, R.M.; POGOSOV, Z.G.

Minerogeochemical facies in the Jurassic sediments of Fergana.
Uzb. geol. zhur. 9 no.4:83-84 '65. (MIRA 18:9)

I. Institut geologii i razvedki neftyanykh i gazovykh mestorozhdeniy
Gosudarstvennogo geologicheskogo komiteta SSSR.

'6(1)

AUTHOR:

Simonenko, I.B.

SCOV/140-59-2-22/3C

TITLE:

On Some Integro-Differential Equations of the Type of Convolution
(O nekotorykh integro-differential'nykh uravneniyakh tipa
svertki)PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Matematika, 1959,
Nr 2, pp 213-226 (USSR)

ABSTRACT: The author considers the equations

$$1) Lf + \lambda(x)f + \frac{1}{\sqrt{2\pi}} \int_{-\infty}^{\infty} \sum_{j=0}^m k_j(x-t) f_j(t) dt + \sum_{j=0}^N \frac{1}{\sqrt{2\pi}} \int_{a_j}^{a_{j+1}} k_j^*(x-t) f(t) dt = \psi(x)$$

$$2) L_j f + \frac{1}{\sqrt{2\pi}} \int_{-\infty}^{\infty} \sum_{l=1}^{m_j} k_{jl}(x-t) L_{lj} f(t) dt = \psi(x), \quad j = 0, \dots, N.$$

Here $\lambda(x) = c_j = \text{const}$ for $x \in (a_j; a_{j+1})$; $-\infty = a_0 < a_1 < \dots < a_N < a_{N+1} = +\infty$. The L, L_j, L_{lj} are linear differential operators with constant coefficients; $k_j, k_j^*, k_{jl} \in L(-\infty, \infty)$; $\psi \in L_2(-\infty, \infty)$;

Card 1/2

On Some Integro-Differential Equations of the
Type of Convolution

SOV/140-59-2-22/30

f is the sought function belonging to $L_2(-\infty, \infty)$ with all derivatives. Similar equations were considered by Yu.I.Cherskiy, I.M.Rapoport, and F.D.Gakhov. With the aid of Fourier transformations the author reduces the equations 1) and 2) to certain boundary value problems which can be reduced to the Riemannian boundary value problem under additional assumptions on the coefficients and the kernels, where the right hand side contains certain parameters which can be determined from a linear algebraic system. The author thanks F.D.Gakhov for the guidance of the work.

There are 8 references, 7 of which are Soviet, and 1 English.

ASSOCIATION: Rostovskiy gosudarstvennyy universitet (Rostov State University)

SUBMITTED: March 27, 1958

Card 2/2

1C(1)

AUTHOR: Simonenko, I.B.

SOV/20-124-2-9/71

TITLE: The Riemannian Boundary Value Problem With Continuous Coefficients
(Krayevaya zadacha Rimana s nepreryvnym koefitsiyentom)

PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 124, Nr 2, pp 278-281 (USSR)

ABSTRACT: The Riemannian boundary value problem with the boundary condition

$$\phi^+(t) = G(t) \phi^-(t) + g(t)$$

was solved by Gakhov [Ref 1] in a closed form for the case that $G(t)$ is continuous and satisfies the Hölder condition. The author shows that the results of Gakhov remain true also then if one desists from the Hölder condition. The proof uses the fact that for $G = 1$ the Riemannian problem goes over into the jump problem which is solvable uniquely in the L_p . Small deviations from 1

of the coefficient $G(t)$ do not change the character of the solution; that is proved by successive approximations. The transition to the general case is made by approximation of the function $\ln G(t)$ by functions satisfying the Hölder conditions. Beside of this method of S.G.Mikhlin the author uses results of B.V.Khvedelidze, I.I.Privalov, and Sokhotskiy. The author thanks F.D.Gakhov for the instruction and V.V.Ivanov for the discussion.

Card 1/2

The Riemannian Boundary Value Problem With Continuous SOV/20-124-2-9/71

There are 5 Soviet references.

ASSOCIATION: Rostovskiy-na-Donu gosudarstvennyy universitet (Rostov-na-Don Rostovskiy
State University)

PRESENTED: September 2, 1958, by V.I.Smirnov, Academician

SUBMITTED: July 22, 1958

Card 2/2

16(1)

AUTHORS: Ivanov, V.V., Simonenko, I.B. SOV/20-126-6-5/67

TITLE: Approximate Search of all Solutions of a Given Linear
Equation in a Banach Space

PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 126, Nr 6,
pp 1172 - 1175 (USSR)

ABSTRACT: Let E_1 and E_2 be complex Banach spaces with basis. The
equation

$$(1) \quad Kx = y,$$

where K is a linear operator on E_1 with range in E_2 is
assumed to have ω linearly independent solutions $x_1, x_2, \dots, x_\omega$
for $y = 0$. Let $\bar{x}_1, \bar{x}_2, \dots, \bar{x}_\omega$ be a system of functionals
from \bar{E}_1 , whereby it is $\det\{\bar{x}_j(x_k)\} \neq 0$. Let the subspace
 E_1^0 consist of those x for which $\bar{x}_j(x) = 0$, $j = 1, 2, \dots, \omega$.
Let $\tilde{x}_1, \tilde{x}_2, \dots, \tilde{x}_\omega$ be an arbitrary linearly independent
system of elements with $\det\{\bar{x}_j(\tilde{x}_k)\} \neq 0$. The equation

Card 1/4

Approximate Search of all Solutions of a Given
Linear Equation in a Banach Space

SOV/20-126-6-5/67

$K^* \bar{u} = 0$ where K^* is adjoint to K is assumed to have β linearly independent solutions $\bar{u}_1, \bar{u}_2, \dots, \bar{u}_\beta$. Let u_1, u_2, \dots, u_β be an arbitrary system of elements from E_2 for which it is $\det \{\bar{u}_k(u_j)\} \neq 0$. Assume that the condition $\bar{u}_k(y) = 0, k = 1, 2, \dots, \beta$, is necessary and sufficient for the solvability of (1).

Theorem : With respect to the unknown $x \in E_1^0$ and the complex constant c_1, c_2, \dots, c_β the equation

$$(2) \quad Kx + \sum_{j=1}^{\beta} c_j u_j = y$$

has one unique solution for every $y \in E_2$.

Let the left side of (2) be understood as an operator \tilde{K} ,

Card 2/4

SOV/20-126-6-5/67

Approximate Search of all Solutions of a Given
Linear Equation in a Banach Space

which transforms the elements $\{x^0, c_1, \dots, c_B\}$,

$$\|\chi\| = \|x^0\|_{E_1} + \left\| \sum_1^B c_j u_j \right\|_{E_2} \text{ of the Banach space } \tilde{E}'$$

into elements of E_2' . Let P_N ($P_N^2 = P_N$) be a projection operator of E_2' into a subspace M_N which contains the elements

u_1, u_2, \dots, u_B starting from a certain N .
Starting from the condition $P_N \tilde{K} \chi_n = P_N y$ ($N = n + B$) the

authors seek an approximative solution of (2) in the form

$\chi_n \{ \varphi_n, c_1, c_2, \dots, c_B \}$, where $\varphi_n \in L_n \subset E_1^0$.

If it is

$$\|P_N K \varphi_n - K \varphi_n\| \leq \varepsilon_N \|K \varphi_n\|, \quad \varepsilon_N \rightarrow 0, \quad N \rightarrow \infty$$

then beginning with a certain N it holds :

Card 3/4

Approximate Search of all Solutions of a Given
Linear Equation in a Banach Space

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$$\| p_N \tilde{K} x_n \| \geq c \| \tilde{K} x_n \|, \quad c > 0.$$

There are 6 references, 4 of which are Soviet, 1 Polish,
and 1 American.

ASSOCIATION: Vychislitel'nyy tsentr AN USSR (Computing Center AS Ukraine
SSR)

PRESENTED: February 16, 1959, by N.N. Bogolyubov, Academician

SUBMITTED: February 12, 1959

Card 4/4

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5/20/60/130/05/CCW/RCF

A6(1) 16 4600

AUTHOR: Simonenko, I.B.

TITLE: Boundedness of Singular Integrals in Orlicz Space

PERIODICAL: Doklady Akademii nauk SSSR, 1960, Vol 130, Nr 5, pp 984-987 (USSR)

ABSTRACT: Let the Orlicz space $L_p(D)$ be defined by the bounded measurable set D of the m -dimensional space E_m and by the function

$M(u) = \int_0^u p(t)dt$, where $p(t)$ is a nondecreasing function. Let the norm $\|u\|_M$ be introduced as usual [Ref 4]. Let further-

more

$$(2) \quad 1 < \beta \leq \frac{up(u)}{M(u)} \leq \lambda .$$

The author considers the singular integral

$$(1) \quad Kf = \int_D \frac{\Omega(p_i q)}{|P-Q|^m} f(Q)dQ ,$$

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Card 1/3

68599

Boundedness of Singular Integrals in Orlicz Space S/020/60/130/05/008/061

where $\theta = \frac{P-Q}{|P-Q|}$ is a point of the unit sphere. For

$\Omega(P; \theta)$ it is assumed :

1. $\int_{S_1} \Omega(P, \theta) d\sigma_\theta = 0$, where S_1 is the unit sphere.

2. $\Omega(P, \theta)$ is continuous in θ for fixed P .

3. $|\Omega(P, \theta_1) - \Omega(P, \theta_2)| \leq \omega(|\theta_1 - \theta_2|)$, where ω does not depend on P and satisfies the condition 4.

4. $\int_0^1 \frac{\omega(t)}{t} dt < \infty$

X

Card 2/3

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S/020/60/135/003/008/039
C111/C222

16.3000

AUTHOR: Simonenko, I.B.

TITLE: Riemannian Boundary Value Problem ¹⁶ With a Measurable Coefficient

PERIODICAL: Doklady Akademii nauk SSSR, 1960, Vol.135, No.3, pp.538-541

TEXT: Let the connected domain D^+ be bounded by $C = \bigcup_{i=0}^m C_i$, where C_i

are simple closed Lyapunov contours. Let the complement of D^+ to the whole plane be D^- . Let $G(t)$ be measurable, $0 < M_1 \leq |G(t)| \leq M_2 < \infty$; let the variation of the argument of $G(t)$ in every point be smaller than $\pi - \delta$, where $\delta > 0$. Problem: Functions $\phi^+(z)$ of the $E_2(D^+)$ are sought, satisfying on C the boundary condition

$$(1) \quad \dot{\phi}^+(t) = G(t) \phi^-(t) + g(t),$$

where $g(t) \in L_2$. The index of the problem $\lambda = \text{Ind } G$ is defined with the aid of coverings. It is shown that also for weak assumptions the results of F.D.Gakhov (Ref.1) with respect to the number of solutions and the solvability remain true; i.e.: If $\lambda = 0$, then (1) has a unique solution,

Card 1/2

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C111/C222

Riemannian Boundary Value Problem With a Measurable Coefficient
for $\lambda^2 > 0$ there exist ∞ linearly independent components of the general
solution; for $\lambda^2 < 0$ the problem is solvable only if λ^2 satisfies
certain conditions of solvability (cf. (Ref.8)); the solution is then
unique.

The author mentions B.V.Khvedelidze, S.G.Mikhlin, I.Ts.Gokhberg, V.V.
Ivanov and V.I.Smirnov. There are 10 references: 9 Soviet and 1 German.

ASSOCIATION: Rostovskiy-na-Donu gosudarstvennyy universitet (Rostov-na-
Donu State University)

PRESENTED: June 14, 1960, by V.I.Smirnov, Academician

SUBMITTED June 10, 1960

Card 2/2

16.4600

AUTHOR: Simonenko, I.B.

89581

S/140/61/000/001/005/006
C111/C222

TITLE: The Riemannian boundary value problem for n pairs of functions
with continuous coefficients

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Matematika, no. 1,
1961, 140-145

TEXT: Let the region D^+ containing the zero point have the boundary C
consisting of simple closed Lyapunov curves. Let D^- be the complementary
region to $D^+ + C$. Let $L_p^n(C)$ be the space of the vectors consisting of n
functions of the boundary point which are summable in p-th ($p > 1$) power.
If a vector of piecewise analytic functions representable as the sum of a
Cauchy integral and a polynomial P_k has the limit values $\phi^\pm(t)$ which
belong to $L_p^n(C)$ then it is denoted by $\phi \in L_p^n(C ; P)$, where P is a vector
with the components P_k .

Problem : Let G be a square matrix the elements of which are functions of
the point of C and the determinant of which reads $\Delta G \neq 0$. Let

$g(t) \in L_p^n(C)$ be a given vector. Determine a piecewise analytic vector

Card 1 / 4

89581

S/140/61/000/001/005/006
C111/C222

The Riemannian boundary value problem

$\phi(z) \in L_p^n(C; 0)$ which on C satisfies the condition

$$\phi^+(t) = G(t) \phi^-(t) + g(t) \quad (1.1)$$

With a strong reference to N.I. Muskhelishvili (Ref. 1 : Singulyarnye integral'nye uravneniya [Singular integral equations] Gostechizdat, 1946), at first the author constructs a system χ_1, \dots, χ_q of solutions of the homogeneous problem. Then it is proved that $q = n$, and that the matrix $\chi(z)$ is canonical. It is furthermore shown that $\sum_{k=1}^n \alpha_k = \alpha \geq \sigma_e$, X

where α_k is the order of the vector χ_k and

$$\sigma_e = \frac{1}{2\pi} \left\{ \arg \Delta G \right\}_c \quad (3.2)$$

is the index of the normally solvable operator

$$A\phi = \phi^+ - G\phi^- \quad (3.1)$$

Card 2/4

89581
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C111/C222

The Riemannian boundary value problem ...

where

$$\phi^{\pm}(t) = \pm \frac{1}{2} \phi(t) \pm \frac{1}{2\pi i} \int_C \frac{\phi(\tilde{t})}{\tau - t} d\tilde{t}.$$

Theorem 1 : The matrix G is representable in the form

$$G = \chi^+ (\chi^-)^{-1} , \quad (4.2)$$

where the elements of the matrix $\chi(z)$ and the inverse matrix $\chi^{-1}(z)$ are functions of the class $L_{\infty}^+(C; P)$; here the determinant $\Delta \chi(z) \neq 0$ in every finite point of the regions D^+ , and the matrix $\chi(z)$ has the normal form in ∞ .

The canonical representation (4.2) permits the solution of the inhomogeneous problem :

Theorem 2 : The problem (1.1) is solvable if $\sum_{k<0} x_k$ solvability

conditions are satisfied ; then it has $\sum_{k>0} x_k$ linearly independent

components of the general solution. The conditions and the solutions are
Card 3/4

89581

The Riemannian boundary value problem ...

S/140/61/000/001/005/006
C111/C222

the same as in (Ref. 1).

The author mentions B.V. Khvedelidze and N.I. Muskhelishvili ; he thanks Professor F.D. Gakhov for the leading of the work. There are 10 Soviet-bloc and 1 non-Soviet bloc references.

ASSOCIATION: Rostovskiy gosudarstvennyy universitet (Rostov State University)

SUBMITTED: December 31, 1958

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Card 4/4

S/044/62/000/012/003/049
A060/A000

AUTHOR: Simonenko, I.B.

TITLE: Riemann and Riemann-Haasemann boundary problems with a continuous coefficient

PERIODICAL: Referativnyy zhurnal, Matematika, no. 12, 1962, 29 - 30, abstract 12B130 (In collection "Issled. po sovrem. probl. teorii funktsiy kompleksn. peremennogo". Moscow, Fizmatgiz, 1961, 380 - 389)

TEXT: 1) The Riemann boundary problem

$$\Phi^+(t) = G(t) \Phi^-(t) + g(t) \quad (1)$$

is solved for the case when the coefficient $G(t)$ is a continuous function, and $g(t) \in L_p$ on the contour consists of a finite number of closed mutually nonintersecting Lyapunov curves. The author proves that all the $G(t)$ published in the case investigated earlier, which was continuous in the Hölder sense, remain also in force here. The proof is founded upon the fact that problem (1) in the case $|G(t)| < q < 1$ has a unique solution, which is easy to demonstrate on the basis of the principle of compact mappings. Using an approximation of the func-

Card 1/2

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A060/A000

Riemann and Riemann-Haasemann boundary

tion $\ln G(t)$ by functions satisfying the Hölder condition, it is demonstrated that problem (1) has a solution for $G(t)$ with index zero. The case of a non-zero index is reduced to the case of a zero index by the usual method. It is established that $\Phi^\pm(t)$ belongs to the same class L_p as the free term $g(t)$.

2) The boundary problem with displacement

$$\Phi^+ [\alpha(t)] = G(t) \Phi^- (t) + g(t) \quad (2)$$

is investigated with $\alpha'(t)$ continuous in the Hölder sense and non-vanishing. The method employed represents a combination of the method of solving problem (2) in the classical case of $G(t)$ continuous in the Hölder sense, and the above-mentioned method of solving problem (1). It is established that the results known for problem (2) in the classical case remain valid here, too. The results relative to problem (1) were formulated in a note by the author (RZhMat. 1961, 3B77). There, an abstracter's note points to some other papers relating to the problem under consideration.

F.D. Gakhov

[Abstracter's note: Complete translation]

Card 2/2

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C111/C222

AUTHOR:

Simonenko, I. B.

TITLE:

Riemannian boundary value problem for n pairs of functions with measurable coefficients and its application to the study of singular integrals in L_p spaces with weights

PERIODICAL: Akademiya nauk SSSR. Doklady, v. 141, no. 1, 1961, 36-39

TEXT: Let C be the set of the simple closed Lyapunov curves without common points which bounds a region D^+ ; let \bar{D} complete the region $D^+ + C$ to the full plane.Let $L_p^{n,n}(\mathbb{L}_p^{n,n})$ be the space of vectors (matrices) formed of functions of the points of C and being summable in p-th power. If a vector (matrix) ϕ^+ consisting of functions analytic in D^+ and representable by a Cauchy integral has the angular limit values $\phi^+(t) \in L_p^{n,n}(\mathbb{L}_p^{n,n})$ ($p > 1$) then let $\phi \in E_p^{n,n}(E_2^{n,n})$.Problem: Determine functions (vectors) $\phi^+(z) \in E_p^{n,n}(E_2^{n,n})$ being

Card 1/7

30022

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Riemannian boundary value problem . . . C111/C222

analytic in D^+ which on C satisfy the boundary condition

$$\phi^+(t) = G(t) \phi^-(t) + g(t) \quad (1)$$

where $G(t)$ is a given function (matrix) and $g(t) \in L_p(L_2^n)$ is a given function (vector).

It is assumed that for $n=1$, $G(t)$ satisfies the conditions: 1) $G(t)$ is measurable; 2) $0 < M_1 \leq |G(t)| \leq M_2 < \infty$; 3) for every $t_0 \in C$ there exists a neighborhood where the values of $G(t)$ lie in a sector with the opening angle $(2\pi - \delta)/\max[p, \frac{p}{p-1}]$ ($p > 1$), $\delta > 0$, and the vertex in the coordinate origin.

In the case $n > 1$ 1) let the elements of $G(t)$ be bounded and measurable 2) let

$$G(t) = G_1(t) G_2(t) G_3(t), \quad (2)$$

Card 2/7

36022

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Riemannian boundary value problem . . . C111/C222

where $G_1(t)$ and $G_2(t)$ are continuous in t , where their determinants are $\neq 0$, while $G_2^*(t)$ satisfies the condition

$$\operatorname{Re} G_2(t) = 1/2 [G(t) + G^*(t)] \geq v > 0,$$

where G_2^* is the matrix conjugate to G_2 , $v > 0$ is a number independent of t .

Let $A(G)$ be the space of solutions of the homogeneous problem (1), let its dimension be $\alpha(G)$. Let $B(G)$ be the space of functionals the orthogonality to the free term $g(t)$ of which is necessary and sufficient for the solvability of the problem, let $\beta(G)$ be its dimension. Let the index $\alpha(G) = \alpha(G) - \beta(G)$. For $n = 1$ it holds:

Theorem 1: $\alpha(G)$ and $\beta(G)$ are finite and it holds:

- 1) for $\{\arg G\}_c \geq 0, \alpha = \frac{1}{2\pi} \{\arg G\}_c, \beta = 0, \lambda = \alpha;$
- 2) for $\{\arg G\}_c \leq 0, \alpha = 0, \beta = -\frac{1}{2\pi} \{\arg G\}_c = -\lambda.$

The theorem holds also if $g(t) \in L_M^*, L_M^* -- \text{Orlicz-space.}$

Card 3/7

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Riemannian boundary value problem . . . C111/C222
 Definition: $W_p^{(n)}$ (n -order of the matrices) denotes the class of
 functions (matrices) $\psi(t)$ which generate the bounded operators

$$A\varphi = \psi(t) \int_c^t \psi^{-1}(\tau) \frac{\psi(\tau)}{\tau-t} d\tau \quad (3)$$

of $L_p^{(L_p^n)}$ in $L_p^{(L_p^n)}$. Let

$$\omega(\psi, t) = \inf_1 \left[\sup_{t \in I} |\psi(t)| - \inf_{t \in I} |\psi(t)| \right]$$

where I are all possible open arcs containing t .
 Theorem 2: The functions $\psi(t) = \left| \exp \left[\frac{1}{2\pi i} \int_c^t \frac{\psi(\tau)}{\tau-t} d\tau \right] \right|$, where ψ
 is a real measurable function, $\sup_t \omega(\psi, t) \leq 2\pi/\lambda - \delta$, $\lambda \geq 2$, $\delta > 0$

Card 4/7

30022
S/020/61/141/001/003/021
C111/C222

Riemannian boundary value problem . . .

belong to the class W_p for $p \in [\frac{\lambda}{\lambda-1}; \lambda]$.

Some further similar results are given (also for Orlicz-spaces), e.g.
if $\Psi(t)$ is continuous then the function $\varrho(t)$ appearing in theorem 2
belongs to W_p for all $p > 1$.

For a system of Riemannian boundary value problems there hold:

Theorem 5: $\alpha(G)$ and $\beta(G)$ are finite and $\infty(G) = \alpha(G) - \beta(G) = \text{Ind}G$,
where $\text{Ind} = \frac{1}{2\pi} \left\{ \arg \Delta(G_1 G_3) \right\}$. ✓

Theorem 6: The problem (1) is unconditionally and uniquely solvable.

Let $G(t) = X^+ U (X^-)^{-1}$ be the canonical representation of $G(t)$, where
1) the elements of X^+ and $(X^-)^{-1}$ have the form $\varphi^+(z) + c$, where
 $\varphi^+ \in E_2^+$, $c = \text{const}$;

Card 5/7

Riemannian boundary value problem . . . C111/C222

2) U is diagonal

$$U = \begin{vmatrix} z^{\alpha_1} & & & \\ & 0 & & \\ & & z^{\alpha_n} & \\ 0 & & & \end{vmatrix};$$

$$3) X^+(t), [X^+(t)]^{-1} \in w_2^n$$

Theorem 7 asserts that every matrix G(t) satisfying the conditions mentioned for $n > 1$ is representable canonically, where

$$\partial\ell_1 + \partial\ell_2 + \dots + \partial\ell_n = \text{Ind } G; \sum_{\substack{\partial\ell_i > 0}} \partial\ell_i = \alpha(G); \sum_{\substack{\partial\ell_i < 0}} |\partial\ell_i| = \beta(G).$$

The author mentions V. J. Smirnov. There are 16 Soviet-bloc and 4 non-Soviet-bloc references. The reference to the English-language

Card 6/7

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S/020/61/141/001/003/021
C111/C222
Riemannian boundary value problem . . . publication reads as follows: H. Widom, Trans. Am. Math. Soc., 83, 222 (1956).

ASSOCIATION: Rostovskiy-na-Donu gosudarstvennyy universitet
(Rostov-na-Donu State University)
PRESENTED: June 5, 1961, by V. J. Smirnov, Academician
SUBMITTED: June 5, 1961

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Card 7/7

S/140/62/000/006/004/006
E031/E435

AUTHOR: Simonenko, I.B.

TITLE: On certain systems of integral equations of convolution type

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Matematika.
no.6, 1962, 119-130

TEXT: This paper is a direct continuation of earlier published work (Izv. vyzov, Matem., no.2, 1959). Three types of equation are considered the method of solution being to reduce them to some boundary problem of analytic functions. The first two equations lead to the problem of finding vector functions $\Phi_j \in L_2(-\infty; +\infty)$ such that the inverse Fourier transform vanishes outside a finite interval and such that

$$\tilde{\Phi}_N + \sum_{j=0}^{N-1} G_j \Phi_j = g$$

where G_j are given matrices and g is a given column vector in
Card 1/2

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On certain systems ...

E031/E435

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 $L_2(-\infty; +\infty)$. The third equation leads to a particular case of this problem. In order to solve the problem in general some assumptions must be made about the matrices G_j . The boundary problem can be reduced to a Riemann problem for n pairs of functions, which in turn can be reduced to a linear system of algebraic equations which is equivalent to the boundary problem. An example illustrates the theory in detail.

ASSOCIATION: Rostovskiy gosudarstvennyy universitet
(Rostov State University)

SUBMITTED: October 16, 1959

Card 2/2

SIMONENKO, I.B.

On certain systems of integral equations of the convolution type. Izv.vys.ucheb.zav.; mat. no.6:119-130 '62. (MIRA 15:12)

1. Rostovskiy gosudarstvennyy universitet.
(Integral equations)

SIMONENKO, I.B.

Interpolation and extrapolation of linear operators in Orlicz spaces.
Dokl. AN SSSR 151 no.6:1288-1291 Ag '63. (MIRA 16:10)

1. Rostovskiy-na-Donu gosudarstvennyy universitet. Predstavлено
akademikom V.I.Smirnovym.

ACCESSION NR: AP4025956

S/0038/64/028/002/0277/0306

AUTHOR: Simonenko, I. B.

TITLE: Riemann boundary value problem for n pairs of functions with measurable coefficients and its application to the study of singular integrals in L_p spaces with weights

SOURCE: AN SSSR. Izv. Seriya matematicheskaya, v. 28, no. 2, 1964, 277-306

TOPIC TAGS: Riemann boundary value problem, measurable coefficient, singular integral, Noether theory, Lyapunov contour, Cauchy integral, measurable function

ABSTRACT: The author studies the Riemann boundary value problem

$$\phi^+(t) = G(t)\phi^-(t) + g(t) \quad (1)$$

for one and n pairs of functions. The solution Φ^+ is sought in the class E_p , given the function $g(t) \in L_p$. He wishes to weaken maximally the conditions on the coefficient (matrix) $G(t)$ for which Noether theory remains valid. Let C be a finite collection of simple closed Lyapunov type contours C_k without common points bounding some region D^+ . Let D^- denote the (generally speaking not connected)

Card 1/2

ACCESSION NR: AP4025956

region complementary to $D^+ + C$ in the entire plane. The space of vectors (matrices) consisting of n functions of points of the contour C whose p -th powers are summable is denoted by L_p^n ($L_p^{n,n}$). If the vector (matrix) Φ^\pm of analytic functions in D^+ , which can be represented by a Cauchy integral, has limiting angular values $\Phi^\pm(t)$ belonging to L_p^n ($L_p^{n,n}$), then

$$\Phi^\pm \in E_p^{n\pm} (E_p^{n,n\pm}). \quad (2)$$

The problem is to find functions (vectors) which are analytic in D^+ , belonging to the class E_p^\pm ($E_2^{n\pm}$) which satisfy the boundary condition (1) on the contour, where $G(t)$ is a given function (matrix), $g(t)$ is a given function (vector) belonging to $L_p(L^n)$. The author studies problem (1) separately for the two cases $n = 1$ and $n > 1$. Orig. art. has: 36 formulas.

ASSOCIATION: Rostovskiy-na-Donu Gosudarstvenny universitet (Rostov-on-Don State University)

SUBMITTED: 19Jul61

DATE ACQ: 15Apr64

ENCL: 00

SUB CODE: MM

NO REF Sov: 026

OTHER: 006

Card 2/2

ACCESSION NR: AP4033684

S/0039/64/063/004/0536/0553

AUTHOR: Simonenko, I. B. (Rostov-na-Donu)

TITLE: Interpolation and extrapolation of linear operators in Orlicz spaces

SOURCE: Matematicheskiy sbornik, v. 63, no. 4, 1964, 536-553

TOPIC TAGS: linear operator, Orlicz space, operator interpolation, operator extrapolation, operator continuity, imbedding theorem, potential operator

ABSTRACT: The author generalizes results of S. G. Kreyn, A. Calderon, A. Zygmund, and S. Koizumi involving interpolation theorems for linear operators in L_p spaces.He obtains an interpolation theorem for which the linear operator K , operating from $L_{\bar{p}_1}(D)$ spaces into $L_{\bar{p}_2}(\bar{D})$ spaces ($i = 1, 2$) as a bounded operator, also operates $L_{\bar{p}_1}$ $L_{\bar{p}_2}$
from Orlicz classes lying between $L_{\bar{p}_1}$ and $L_{\bar{p}_2}$ into certain Orlicz classes found
between $L_{\bar{p}_1}$ and $L_{\bar{p}_2}$. He defines the meaning of "between". In the case of complete

Card 1/3

ACCESSION NR: APL033684

continuity at one of the ends he succeeds in obtaining complete continuity of the operator in the intermediate spaces, which is a generalization of results of M. A. Krasnosel'skiy for L_p spaces. He shows boundedness of "potential" operators in the Orlicz spaces $L^*(D)$ where the measure of the set D is infinite, and he formulates

imbedding theorems. He transfers the entire theory of multidimensional singular integral equations into Orlicz space, and also does the same for many results involving L_p spaces. Two examples are given. The extrapolation theorem he proves allows him to draw conclusions on the boundedness of a linear integral operator in other spaces from its boundedness in one L_{p_0} space and a rather elementary estimate

of the kernel. With the help of this theorem he is able to prove boundedness of singular integrals in Orlicz spaces on the basis of their boundedness in L_2 space.

"The author expresses his gratitude to his co-workers, in particular V. I. Yudovich, for their valuable advice." Orig. art. has: 28 formulas.

ASSOCIATION: none

Card 2/3

ACCESSION NR: AP4033684

SUBMITTED: 26Dec62

SUB CODE: MA

DATE ACQ: 07May64

NO REF Sov: 013

ENCL: 00

OTHER: 004

Card 3/3

SIMONEJKO, I.B.

Maximal boundary property of functions representable by integrals
of a certain type. Dokl. AN SSSR 157 no.6:1301-1302 Af '64.
(MikA 17:9)

1. Rostovskiy-na-Donu gosudarstvennyj universitet. Predstavлено
akademikom A.N. Kolmogorovym.

ACCESSION NR: AP5008593

S/0144/64/000/011/1305/1310

B

AUTHOR: Zakharyuta, V. P.; Simonenko, I. B.; Yudovich, V. I.

TITLE: Calculation of capacitances by the point discharge method

SOURCE: IVUZ. Elektromekhanika, no. 11, 1964, 1305-1310

TOPIC TAGS: electric wire, dielectrics, electric capacitance

ABSTRACT: An approximate method of calculating the capacitance of conductors in the presence of dielectrics is proposed. This method is particularly effective when the potential created by a point discharge (Green's function) is determinable for a given dielectric system. The authors present examples of calculations for the case of a dielectric layer for plane and three-dimensional problems. The new method is found to be correct to $\pm 5\%$ and $\pm 10\%$ depending on the problem. Orig. art. has 4 figures and 2 tables.

ASSOCIATION: none

SUBMITTED: 26Nov63

ENCL: 00

SUB CODE: EE

NO REF Sov: 001

OTHER: 000

JPBS

Card 1/1

L 29137-65 EWT(d) Pg-4 IJP(c)

ACCESSION NR: AP4047315

S/0020/64/158/004/0790/0793

14
13
B

AUTHORS: Simonenko, I.B.

TITLE: A new general method for investigating linear operator equations of singular integral type

SOURCE: AN.SSSR. Doklady*, v. 158, no. 4, 1964, 790-793

TOPIC TAGS: linear operator equation, singular integral equation, real analysis, complex analysis, Noetherian operator, local Noetherian operator

ABSTRACT: The authors present a method for deciding whether linear (bounded) operators of "local type" acting from $\mathcal{L}_p(X)$, into $\mathcal{L}_p(X)$, where X is a bicomplete Hausdorff space of finite dimension with a measure, are Noetherian. (A linear operator B is said to be Noetherian if(1) its image is closed, (2) the number $\alpha(B)$ of linearly independent solutions of the equation $Bf = 0$ is finite, and (3) $\beta(B) = \alpha(B^*)$, where B^* is the conjugate of B , is also finite.) This method provides necessary and sufficient conditions for singular integrals with continuous symbol in the class $\mathcal{L}_p(1 < p < \infty)$ and previously uninvestigated integrals with piecewise-continuous symbols to be

Card 1/2

L 29137-65

ACCESSION NR: AP4047315

Noetherian. The requisite definitions are stated, and examples are given. Orig. art. has: 4 equations.

ASSOCIATION: Rostovskiy gosudarstvenny universitet (Rostov State University)

SUBMITTED: 17Apr64

ENCL: 00

SUB CODE: MA

NR REF SOV: 004

OTHER: 002

Card 2/2

SIMONENKO, I.B. (Rostov-na-Donu)

Maximal boundary property of functions having integral representations of a definite type. Mat. sbcr. 65 no.3:390-397
(MIRA 18:1)
N '64

ZAKHARUTA, Vyacheslav Pavlovich, starshij prepodavatel'; SIMONENKO, Igor' Borisovich, kand. fiz.-matem. nauk, starshiy nauchnyy sotrudnik; SHATSKIKH, L.S., mladshaya nauchnaya sotrudnitsa; YUDOVICH, V.I., kand. fiz.-matem. nauk, ispolnyayushchaya obyazannosti dotsenta.

Green's function for a region with dielectric layer. Izv. vys. ucheb. zav.; elektromekh. 7 no.9:1052-1056 '64 (MIRA 18:1)

1. Kafedra matematicheskogo analiza Rostovskogo-na-Donu universiteta.

SIMONENKO, I.B.

Singular integral equations with a continuous or piecewise
continuous symbol. Dokl. AN SSSR 159 no.2:279-282 N '64.

(MIRA 17:12)

1. Rostovskiy gosudarstvennyy universitet. Predstavлено akademikom
V.I. Smirnovym.

SIMONENKO, I.B.

New general method for studying linear operator equations of the
type of singular integral equations. Part 2. Izv. AN SSSR. Ser.
mat. 29 no.4:757-782 '65. (MIR 18:9)

ACC NR: AP0034538

SOURCE CODE: UR/0421/66/000/005/0051/0055

AUTHOR: Zen'kovskaya, S. M. (Rostov-na-Donu); Simonenko, I. B. (Rostov-na-Donu)

ORG: none

TITLE: Effect of high-frequency vibration on the start up of convection

SOURCE: AN SSSR. Izvestiya. Mekhanika zhidkosti i gaza, no. 5, 1966, 51-55

TOPIC TAGS: thermal convection, vibration, vibration effect , HF vibration

ABSTRACT: The effect of high-frequency vibration on the start-up of convection is studied qualitatively using a liquid in a plane horizontal zone subjected to vibrational forces generated by a vertical vibration of the vessel containing the liquid. The method for determining the averaged system of equations of convection is used. The unknowns sought are the sum of two components: one varying slowly with time, and a small-amplitude component varying rapidly. An additional, new parameter (beside the known product of the Grashof and Prandtl numbers), on which the vibration start-up depends, is determined and used. Assuming spatial periodic disturbances (disregarding actual boundary conditions), it was found that when even a small vibration of sufficiently high frequency is present, there is a relatively stable state of rest at high temperature gradients. Convection starts when, on reaching the critical difference between the temperatures at the upper and lower boundaries

Card 1/2

ACC NR: AP6034538

of the liquid, the state of rest becomes unstable. The authors hope to use this method for a future quantitative study. Orig. art. has: 18 formulas.

SUB CODE: 13/ SUBM DATE: 01May66/ ORIG REF: 006/ OTH REF: 001/

Card 2/2

ZAKHARYUTA, Vyacheslav Pavlovich, starshiy predovavatel'; SIMONENKO, Igor' Borisovich, kand. fiziko-matem. nauk; CHEKULAYEVA, Aleksandra Afanas'yevna, mladshaya nauchnaya sotrudnitsa; YUDOVICH, Viktor Iosifovich, kand. fiziko-matem. ispolnyaushchiy obyazannosti dotsenta

Capacitance of a round disc on a dielectric layer; for a case of thick layer. Izv. vys. ucheb. zav.; elektromekh. 8 no.5:487-494 '65.
(MIRA 18:7)

1. Kafedra matematicheskogo analiza Rostovskogo-na-Donu gosudarstvennogo universiteta.

ZAKHARYUTA, Vyacheslav Anatol'evich, starshiy prepodavatel'; SIMENIKO, Igor' Borisovich, kand. fiziko-mat. nauk, starshiy nauchnyy sotrudnik;
CHUBUKOVA, Yelena Sergeyevna, klassicheskaya nauchnaya sotrudnitsa;
YUDOVICH, Viktor Isidorovich, kand. fiziko-mat. nauk, ispolnyayushchiy
obyazannosti dotsenta

Capacitance of two rectangular conductors. Izv.vys.ucheb.zav.;
elektromekh. 8 no.7:727-732 '65. (MIRA 18:8)

1. Kafedra matematicheskogo analiza Rostovskogo universiteta.

SIMONOV, I.P.

New general purpose aircraft gunner's seat - one of the
type of singular interest open source. Moscow, AN SSSR. Feb.
mat. 29 no. 3-587-58A-145.
(MURA 18:6)

AKHIEZUTA, Vyacheslav Pavlovich, старший преподаватель; SIMONENKO, Igor' Berisovich, канд. физико-математических наук, старший научный сотрудник; YUDOVICH, Viktor Iosifovich, канд. физико-математических наук докторант

Point charge method for capacitance calculations. Izv. vys. ucheb. zav.; elektromekh. 7 no.11:1305-1310 '64,

(MIRA 18-3)

1. Kafedra matematicheskogo analiza Rostovskogo gosudarstvennogo universiteta.

ZAKHAROV, Vyacheslav Vasil'evich, 1930, fiziko-matematicheskii, fizik, Igor' Borisovich, kand. fiziko-matem. nauk, chlen-yazychnyye sotrudnik;
YULOVICH, Viktor Iosifovich, kand. fiziko-matem. nauk, ispr. nyayushchiy obrazovaniye dotsenta

Approximation method for calculating the capacity of conductors
on a dielectric layer. Izv. vys. ucheb. zav., elektronika, 8
no. 3:247-253 '65. (MIRA 18:5)

• Author(s): ZAKHAROV, V. V.; YULOVICH, V. I.

SIMONENKO, I.S., kapitan 1-go ranga

Simultaneous action of staffs and political sections. Mor. sbor.
46 no.1:9-15 Ja '63. (MIRA 16:1)
(Russia--Navy--Organization)

SIMONENKO, I.I.; ROZENBERG, A.M.; RYASNYANSKIY, B.A.; SOKOV, N.A.;
TOL'SKAYA, S.Ye.; TROYANSKIY, A.M.; TSUKANOV, P.P., kandidat
tekhnicheskikh nauk, redaktor; VENIHA, G.P., tekhnicheskiy
redaktor

[The Donets railway's advanced method of track maintenance]
Perevodye metody truda puteitsev Donetskoi dorogi. Moskva, Gos.
transp.zhel-dor.izd-vo, 1956. 110 p. (MIRA 9:8)
(Railroads--Track)

SIMONENKO N.V.

Third All-Union Scientific and Technical Conference on
the Improvement of the Wear Resistance and Service Life of
Machine Components (Tret'ya Vsesoyuznaya nauchno-tehnicheskaya kon-
ferentsiya po povysheniyu iznosostoykosti i sroka sluzhby
mekhanicheskikh komponentov)

The Third All-Union Scientific and Technical Conference on the Improvement of the Wear Resistance and Service Life of Machine Components was organized by the Ministry of Machine Building (The Scientific and Technical Organization of the Soviet Machine Engineering Industry) and by the Institute of Mechanics of Building Structures, Ac.Sc. Ukrainian SSR (Institut mekhaniki zdroitelej nekhaniki AN UkrSSR). 450 delegates representing 47 major institutions of the Ac.Sc. USSR and of the Ukrainian SSR, the specialised research agencies and the large Soviet plants gathered and discussed 90 papers devoted to the study of the mechanism of disintegration of surface layers in machine components and to new methods of improving the wear life of components.

"APPROVED FOR RELEASE: 08/23/2000

CIA-RDP86-00513R001550710010-1

... by Academician S.V. Gerasimov entitled "Metal Fatigue Related to Wear and Fatigue", a survey of Russian and foreign studies was given with emphasis on fatigue failures caused by wear, both as a result of the mechanical consequences due to

... resistance and Service Life of Materials

... result of a change in the physical and chemical properties

APPROVED FOR RELEASE: 08/23/2000

CIA-RDP86-00513R001550710010-1"

122-252/221

Scientific and Technical Conference in Kiev on 11-15 April
1970 "The Wear Resistance and Service Life of Machines".

which constitutes the natural thermocouple of which one junction is the sliding surface and the other is the bond between the pin face and the coating metal.

Great interest was aroused by the paper "The Variation of Wear Resistance of Certain Anti-friction Alloys under Nuclear Radiation" by B.L. Slin'ko. Precipitation-hardening alloys (beryllium copper C2 and nickel silicon bronze Bp. KH 1-3) have their strength and wear resistance increased by nuclear radiation. Alloys changing their properties mainly as a result of phase transformations and having a higher re-crystallisation temperature change their properties insignificantly.

In a paper "Foundations of the Cavitation-erosion Failure of Ferrous Alloys", I.N. Bogachev, Doctor of Technical Sciences, and R.I. Mints, Candidate of Technical Sciences, generalised the studies of the effect of the chemical and phase composition of iron carbon alloys on their cavitation erosion resistance. Increasing the carbon content from 0.023 to 1.2% improves the erosion resistance. The effect of alloying is due solely to the metallographic structure obtained. A pronounced improvement of cavitation resistance is obtained in spheroidal graphite cast iron.

of the Wear Resistance and Service Life of

Engineer L.A. Ghatnyan in his paper "Investigation of the Wear Resistance of Nickel Alloys under Dry Friction at Elevated Temperatures" reported the results of his test which showed nickel alloys to have the best wear resistance at high temperatures, whilst the initial hardness is of little consequence. The optimum composition of a new alloy with a high wear resistance at 400° C was given, whilst high-speed steel and ordinary chromium steels have little wear resistance under dry friction at high temperatures.

132-2-29/33

Scientific and Technical Conference in Kiev on the Improvement
of Wear Resistance and Service Life of Machines

application of anti-friction metals such as cast iron or
alloyed steel upon steel pulleys. In unlubricated operation, such
deposits increase the wear life of wire ropes by a factor of 2-3.
V. V. Krumin, Candidate of Technical Sciences, in his paper
"Wear-resistant Hard Facing Deposits", stated the
possibility of obtaining the desired

Electrolytic Diffusion Method of Manufacturing bimetallic Parts

Povysheniye iznosostoykosti i sroka sluzhby mashin. t. 2 (Increasing the Wear Resistance and Extending the Service Life of Machines. v. 2) Kiyev, Izd-vo AN UkrSSR, 1960. 220 p. 3,000 copies printed. (Series: Its: Trudy, t. 2)

Sponsoring Agency: Vsesoyuznoye nauchno-tehnicheskoye obshchestvo mashinostroitel 'noy promyshlennosti. Tsentral 'noye i Kiyevskoye oblastnoye pravleniya. Institut mekhaniki AN UkrSSR.

Editorial Board: Resp. Ed.: B. D. Grozin; Deputy Resp. Ed.: D. A. Draygor; M. P. Braun, I. D. Faynerman, I. V. Kragel'skiy; Scientific Secretary: M. L. Barabash; Ed. of v.2: Ya. A. Samokhvalov; Tech. Ed.: N. P. Rakhlina.

COVERAGE: The collection contains papers presented at the Third Scientific Technical Conference held in Kiyev in September 1957 on problems of increasing the wear resistance and extending the service life of machines. The conference was sponsored by the Institut stroitel 'noy mekhaniki AN UkrSSR (Institute of Structural Mechanics of the Academy of Sciences Ukrainian SSR), and by the Kiyevshaya oblastnaya organizatsiya nauchno-tehnicheskogo obshchestva mashinostroitel 'noy promyshlennosti (Kiyev Regional Organization of the Scientific Technical Society of the Machine-Building Industry).

TABLE I BOOK EXPLANATION 307/424

Borobolskaya po Vsesoyuznuyu pressu, Leningrad.

Кристаллизация металлов, твёрдых растворов и кристаллизация (кристаллизация металлов).
Transactions of the Fourth Conference on the Theory of Casting Processes.

Moscow, Izdat. Akad. Nauk, 1960. 325 p., 3,000 copies printed.

Sponsoring Agency: Academy of Sci., Institute of Metallurgy, Institute of
Metallic Materials.Prof. R. I. B. Orlinov, Doctor of Technical Sciences, Professor; Ed. of
Publishing House V. S. Rabotničeskij Knizh. Ed. S. G. Tikhonova.PURPOSE: This book is intended for metallurgists and scientific workers. It
may also be useful to technical personnel at foundries.CONTENTS: The book contains the transactions of the Fourth Conference (1960) on
the theory of casting processes. [The previous conference deals with
homogenization of molten metals (1955), crystallization of metals (1956) and
casting processes in practice (1957)]. General problems in the crystal-
lization of metals, including the crystallization of nonferrous metals,
alloy metals with special properties, cast iron, and of nonferrous alloys, are
discussed. Attention is given to R. I. Orlinov and I. T. Orlinova and their
students. R. I. Orlinov and A. G. Sosulin, for their contributions to the
development of the basic problems involved in the theory of crystallization
of ferrous and nonferrous metals and alloys. Academician A. V. Sushkov is
also mentioned in connection with his work on the planning of research on
alloy formation. References accompany several of the articles.

III. CRYSTALLIZATION OF SPECIAL ALLOYS

Guttmann, F.: Influence of Modification on the Structure and
Physical-Mechanical Properties of High-Alloy Steel. 159Kazakov, F. P., V. V. Kudryavtsev, and Yu. Yu. Kudryavtsev. Structure Formation
During Solidification of Casting Slags by Temperature Control
Metals, Ingot and Ingots. Effect of Temperature Vibrations. 166Ogurcov, I. I. and N. N. Zemlyanikov. Effect of Ultrasonic Vibrations
on Metal Casting Crystallized in a Molten Metal. 176

IV. CRYSTALLIZATION OF CAST IRON

Pashin, E. P. and Yu. B. Demin. Electric Crystallization of Gray Iron. 180

Gorbunov, L. G. Graphite Crystallization in Iron-Carbide Alloys. 182

Makogon, Yu. A. Extracryalline Litteration of Silicon in Cast
Iron and Steel. 209Pavlenko, A. Sulfur Migration in Iron-Carbon-Silicon Alloys and
the Structure of Cast Iron. 220Perov, I. Ye. Influence of the Cooling Rate During Crystallization on
the Distribution of Alloying Elements Between Matrix and White Cast
Iron. 231Shchelkin, B. S. Investigation of the Spontaneous Graphite Formation
Process in Cast Iron (in the Cast State). 237Sokolovskiy, I. A. and E. V. Ponomaryova. Crystallization of Manganese
Cast Iron (Graphite) to Steel. 239Tsvetkov, I. P. On the Modification of Manganese Cast Iron with
Aluminum and Silicon. 252

V. CRYSTALLIZATION OF SOME OTHER ALLOYS

Sokolov, S. S., Yu. A. Sosulin, and I. M. Smirnov. Crystallization
of Alloyed Iron. 263Spasit'ko, A. G. Factors Influencing the Structure of the Casting
Metallic Matrix. 272Sokolov, S. S. and A. A. Sosulin. Crystallization of Semimetallic
Alloys. 279Vorob'ev, N. I. and Yu. N. Polozov. Influence of the Cooling Rate and Alloying
Components on the Structure of the Crystallized Layer in the Casting
Process. 287Vorob'ev, N. I., Yu. N. Polozov, and Yu. D. Kostylev. Structure
Formation of the Crystallized Layer and Distribution of Alloying Alloys.
Distribution of the Crystallized Layer in the Casting Process. 295

Novozhilov, R. A. Characteristics Parameters of Metal Casting. 303

27537
S/123/61/000/014/029/045
A004/A101

181200

AUTHOR: Simonenko, M.V.

TITLE: Galvanic diffusion method of manufacturing bimetallic parts

PERIODICAL: Referativnyy zhurnal. Mashinostroyeniye, no. 14, 1961, 94, abstract
14B651 (V sb. "Povysheniye iznosostoykosti i sroka sluzhby mashin.
v. 2", Kiyev, AN UkrSSR, 1960, 129 - 138)

TEXT: Investigations have been carried out to study the diffusion processes of forming double copper-zinc, copper-aluminum and copper-silicon alloys on cylindrical specimens 12-14 mm in diameter and 15 mm long, made of grade M1 bar copper, and steel rods with a galvanically deposited copper layer of 1-1.5 mm thickness. The following diffusion mixtures were used: powders of zinc, aluminum and 75% finely ground ferrosilicon with additions of calcined clay and ammonium chloride to prevent the sintering of the powders and create a neutral atmosphere. The author studied the effect of the concentration of the diffusion elements (zinc, silicon and aluminum), temperature and holding time on the depth and structure of the diffusion layer. He presents data on the physical-mechanical properties (hardness, strength, resistance to wear, oil holding capacity etc)

Card 1/2

27537
S/123/61/000/014/029/045
A004/A101

Galvanic diffusion method ...

of different non-ferrous alloys obtained by the galvanic diffusion method. The author checked the serviceability of bimetallic bearings, bushes and other parts manufactured by the galvanic diffusion method and utilized in the FAZ-51 (GAZ-51) engine, in various machine tools and plant equipment, and components of special designation. The treatment of these parts consisted in the application of a nickel sublayer of 15-20 mm thickness on the preliminarily prepared surface in an ordinary bath, copper plating of 0.5-2.0 mm thickness in a bath with the following composition: 250 gr/liter copper sulfate and 75 gr/liter sulfuric acid at 30-40°C and a current density of 3-5 amp/dm², chemical heat treatment at 800-820°C in a powdery mixture of zinc powder (70-80% of the weight of the copper layer), powder-like grade Cu-75 ferrosilicon (FOCT [GOST] 1415-49) screened through a sieve with 900 holes/cm² (10-20% of the weight of the copper layer), grog screened through the same sieve (with weight ratios of grog-to-zinc and grog-to-ferro-silicon from 2:1 to 5:1), and commercial ammonium chloride according to FOCT (GOST) 3759-47 (2% of the aggregate weight of the diffusion mixture). It was proved that all parts manufactured by the galvanic diffusion method are not inferior to parts from ordinary nonferrous antifriction alloys in their serviceability and quality.

[Abstracter's note: Complete translation]

N. Savina

Card 2/2

SIMONENKO, M.V.; BELOUSOV, N.N.; STAROSTIN, Ye.A.; TAV'YEVA, S.M.

Aluminum alloys instead of bronze in gas plug cocks. Gaz. prom.
6 no. 1:27-31 '61. (MIRA 14:1)
(Gas distribution)

and function in situ of the normal control of the glomerular system with respect of "Pineal-glomerular symbiosis". Acta endocrinol. 15: no.3:227-231 '64.

APPROVED FOR RELEASE: 08/23/2000

CIA-RDP86-00513R001550710010-1"

SIMONENKO, N., elektroniker SU-55

Grooving device. Na stroy. Mosk. 1 no. 5:28 My '58. (MIRA 11:8)

1. Trest Moselektromontazh No. 3.
(Walls)

KOZENKO, K.M.; SIMONENKO, N.A.; RUDENKO, I.V.

Reinforcement of the high heel and sole in fancy socks.
Tekst.prom. 19 no.10:49-51 0 '59. (MIRA 13:1)
(Hosiery)

SIMONENKO, N.A.

Prospects of the expansion of the manufacture of nonwoven
knit-and-stitched fabrics. Tekst.prom. 22 no.10:73-75
0 '62. (MIRA 15:11)

1. Zaveduyushchiy laboratoriye netkanykh materialov
Ukrainskogo nauchno-issledovatel'skogo instituta tekstil'moy
promyshlennosti (UkrNIITP).
(Nonwoven fabrics)

SIMONENKO, N.A.

Effect of the structure of the lap on the properties of
nonwoven fabrics. Tekst. prom. 23 no.12:60-62 D '63.
(MIRA 17:1)

1. Zaveduyushchiy laboratoriyye netkanykh tekstil'nykh
materialov Ukrainskogo nauchno-issledovatel'skogo instituta
tekstil'noy promyshlennosti (UkrNIITP).

AUTHOR: Simonenko, N. I.

68-58-6-17/21

TITLE: In the Coking Section of VNITO of Metallurgists
(V koksokhimicheskoy sektsii VNITO metallurgov)

PERIODICAL: Koks i Khimiya, 1958, Nr 6, p 57 (USSR)

ABSTRACT: A conference of the coking section of the Scientific Technical Society of Metallurgists was held in Moscow in April on the subject of dephenolising effluent waters. The main paper was read by B. M. Sokolov "On the operation of dephenolising plant for effluent waters by a steam recirculation method, its achievements and deficiencies. No details are given.

1. Metallurgy--USSR 2. Coke 2. Phenols--Separation

Card 1/1

SIMONENKO, N.I.

"Coke industry by-products for the manufacture of polymer materials"
by M.S.Litvinenko, I.M.Nosalevich. Reviewed by N.I.Simonenko.
Khim.prom. no.9:698 S '62. (MIRA 15:11)
(Coke industry--By-products) (Polymers)
(Litvinenko, M.S.) (Nosalevich, I.M.)

SIMONENKO, N.M., assistant.

Materials on the pharmacodynamics and pharmacotherapy of disulfanilamide in animals. Sbor. trud. Khar'. vet. inst. 20:56-63 '49.
(Sulfanilanilide) (MLB 9:11)

SEMINOV, V. V.

"The problem of the biological and activity of discipline." Oral
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Sep 5.)

SC: Sum 432, 27 Mar 55

USSR/Medicine - Veterinary, Coccidiosis; Drugs

Card 1/1

Author : Nosik, A. F., Doctor of Veterinary Sciences, and Simonenko, N. M., Candidate of Biological Sciences

Title : Experience in the treatment of coccidiosis in animals and fowl

Periodical : Veterinariya, 31, 39-41, May 1954

Abstract : The species to which coccidia belong and their biological peculiarities are well known; the epizootiological factors which contribute to spread of coccidiosis among domesticated animals and poultry have been discovered. Yet veterinary workers are still helpless in the face of the fact that coccidiosis causes great economic loss on many farms. Norsulfazole has been found effective and harmless in the treatment of the disease when used in combination with disulfan. Administration of these drugs to sheep, pigs, and cattle in large doses produced no harmful effects.

Institution : Khar'kov Veterinary Institute

Submitted :

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CIA-RDP86-00513R001550710010-1

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1318. Treatment of coccidiosis of hens and chicks. A. P. NOOK
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194-197; Referat. Zb. Biol., 1956, Abstr. No. 52278. (Russian)
Med C. C. BARBER

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YUKHNOVICH, A.N., veter. vrach (Yel'ninskiy rayon, Smolenskoy oblasti); RUDOMETKIN, Ya.S., veter. vrach; EVENTOV, M.Z., veter. vrach; SOBOLEV, A.S., dotsent (Estonskaya SSR); DOL'NIKOV, Yu.Ya., kand. veteran. nauk; PALIMPSESTOV, M.A., prof.; SIMONENKO, N.M., dotsent; GONCHAROV, A.P., assistent; BEZRUKOV, A.A.; FROLENKO, N.A., veter. vrach (Serov, Sverdlovskoy oblasti); KOSHCHEYEV, P.M.; VOROB'YEV, M.M., kand. veteran. nauk; YANCHENKO, P.Kh., veter. vrach; AMELIN, I.P.; BYCHKOV, A.I., kand. veteran. nauk; SHVYREV, G.I., veter. vrach (Stavropol'skiy kray); DANILIN, N.F.; TRUSHIN, A.Z., veter. vrach; SKRYPNIKOVA, T.K., veter. fel'dsher; MIKHEYEV, A.D.; KARMANOVA, Ye.M., kand. biol. nauk; REMIZOV, Ye.S., mladshiy nauchnyy sotrudnik; ANTIPIN, D.N., referent

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Jl '61.

1. Reshetovskiy veterinarnyy uchastok, Novosibirskoy oblasti (for Rudometkin).
2. Sovkhoz "Buda-Koshelevskiy" Gomel'skoy oblasti (for Eventov).
3. Sibirskiy nauchno-issledovatel'skiy veterinarnyy institut (for Dol'nikov).
4. Khar'kovskiy veterinarnyy institut (for Palimpsestov, Simonenko, Goncharov).
5. Blagoveschchenskiy sel'skokhozyaystvennyy institut (for Bezrukov).
6. Novo-Nikolayevskiy veterinarnyy uchastok Krasnodarskogo kraya (for Lochkarev).
7. Karpilovskiy veterinarnyy uchastok Chernigovskoy oblasti (for Ponomarenko).
8. Kamalinskiy veterinarnyy uchastok Krasnoyarskogo kraya (for Koshcheyev).

(Continued on next card)

SIMONENKO, Nikolay Mikhaylovich [Symonenko, M.M.], kand. biol.
nauk; SMIRNOV, O.V. [Smirnov, O.V.], red.

[Pharmacology and toxicology] Farmakologija z toksykologieiu. Kyiv, Urozhai, 1964. 175 p. (MIRA 17:11)

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prof., retaenzent; SIMONENKO, S.L., kand.tekhn.nauk, retsenzent;
AVAKYAN, G.A., dotsent, kand.tekhn.nauk, nauchnyy red.; KUNYAVSKAYA,
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Trudy VNIIM no.1:96-105 '47. (MIRA 11:11)
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"APPROVED FOR RELEASE: 08/23/2000

CIA-RDP86-00513R001550710010-1

13, 1970.

"The Airstrip is located in the village of G. P. T. L., the Lower Boundary of which is at
the Indochine Project, Tham Xe, N. C., Laos (11°10'N)

SD: U-3 2, 11 MAY 1970

APPROVED FOR RELEASE: 08/23/2000

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Nauk SSSR, Ser. Fiz., 13, No. 4, 1949. Mbr., Leningrad Affil. Sci. Res. Inst.
Terrestrial Magnetism, -cl949-. *P 470.*

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ROZE, T.N.

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Tablitsy otnositel'nykh znachenny elementov magnitnogo polya nekotorykh tel i primeneniye
ikh k interpretatsii i i magnitnykh anomalii, Trudy Nauch.-issled in-to zemnogo magnetizma,
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C A

Magnetic properties of some rocks at different temperatures. T. M. Bann. *Uchonye Zapiski Leningrad Gossudarstv. Univ.* No. 129, Ser. Pts. Nauk No. 7, 174-80 (1949).—The magnetic activity of both strongly magnetic and weakly magnetic rocks were investigated. The hysteresis cycles of magnetic rocks were investigated. The hysteresis cycles of

point, were also determined. The fundamental curves of magnetization and hysteresis cycles were taken in fields up to 280 oersted. For all measurement the astatic magnetometer was used. Samples of rock were taken in the form of cylinders 12 mm. in diam. and 80-110 mm. long. The samples were heated in an elec. furnace placed inside a magnetizing coil. The intensity of the magnetization, J , of the sample was determined by comparison of the magnetic moment of the sample with the magnetic moment of a standard coil. The max. value of $\Delta J/J$ were 0.05. On the basis of the results of measurements made the following conclusions were reached: (1) the magnetic activity of the rocks (susceptibility x , residual magnetization J_r and coercive force H_c) depends on the presence of magnetite, but is not found to be in simple relation to the content of magnetite in the rock; (2) the hysteresis cycles of the rock decrease gradually for temps. increasing toward the Curie point; (3) the natural residual magnetization, J_r , of the rock seems to be the thermoremanent magnetization, J_{tr} acquired during cooling in the earth's magnetic field; (4) the magnitude of the ratio J_{tr}/J_r is larger for a weakly ferrimagnetic rock than for a strongly ferrimagnetic rock; (5) according to the magnitude of the natural residual magnetization it is possible to det. in what kind of field a given rock was magnetized; (6) the heating process changes the surface of magnetite samples to hematite, but the inner remains magnetite; and (7) pyrrhotite is sharply distinguished from the other minerals and rocks by the form of its hysteresis cycles and by the nature of the changes of the magnetic activity on heating. Conclusion: The temp. of formation of pyrrhotites, the magnetic activities of which change on heating, lies above 270°. Gladys S. Mary

ROZE, T. H.

b7

T. H. Roze

The determination of horizontal and vertical components of the magnetic field
of the sloping planes and cylinders.

Leningrad Sci. Research Inst. of the Terrestrial magnetism

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USSR/Geophysics - Magnetic Anomalies' Depth May/Jun 5:

"Determining the Depths of Sources of Certain Magnetic Anomalies in the Territory of the European Part of the USSR," T. N. Roze, Leningrad Affiliate Sci Res Inst of Terrestrial Magnetism

"Iz Ak Nauk SSSR, Ser Geofiz" No 3, pp 78-92

Presents results of a detn of the depths of mineral deposits that create magnetic anomalies in the European part of the USSR. The depths of deposits of the upper magnetic poles of the exciting objects are included in the limits from several tens of meters to 25 km. An interpretation of the anomalies was

22Apr73

conducted by way of a comparison of an observed anomalous magnetic field with the theoretical field of various models. Submitted 30 Dec 51.

22Apr73

ROZE, T.N.

SIMONENKO, T.N.

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✓Simonenko, T. N. On the computation of the Z_a values
from the measured values of ΔT . Izv. Akad. Nauk
SSSR. Ser. Geofiz. 1956, 704-707. (Russian)

An aeromagnetic survey yields a picture of the total magnetic intensity and its interpretation can be singularly facilitated if it is transformed by computation into a map of vertical component Z of the total magnetic field. A very efficient numerical method of this transformation is discussed in this paper. Its simplicity is due to an essential limitation not mentioned in the title: only the two-dimensional case is considered which means that the double integration necessary in the general case is reduced to a simple integral taken along a rectilinear profile perpendicular to the family of parallel isolines representing the magnetic anomaly. This integral is evaluated as Cauchy's principal value of a divergent integral which is perfectly correct. As a check serves a numerical example in which the vertical component was known as a result of an ordinary magnetic survey. The computed curve coincides well with the directly observed curve of Z . The case considered in this example was a favourable one: the magnetic anomaly was 75 klm. long and 30 klm. wide so that the isolines were in fact parallel, the profile being laid over the central part of the anomaly.

E. Kogbeliantz (New York, N.Y.)

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10 Aug

All-USSR Sci.-Res. Geol. Inst.